

CLAIMS

What is claimed is:

1. An exhaust system of a liquid electrophotography printer, comprising:
an exhaust line to discharge air inside an engine cell to an outside thereof;
at least one exhaust fan, which is installed inside the exhaust line to generate and move the air inside the engine cell;
a heating coil to heat the air to be discharged through the exhaust line to ignite impurities contained in the air; and
an oxidative catalyst filter to filter and deodorize the impurities.
2. The exhaust system of the liquid electrophotography printer according to claim 1, wherein the heating coil is installed inside the exhaust line and coated with platinum on an outer surface.
3. The exhaust system of the liquid electrophotography printer according to claim 1, wherein the oxidative catalyst filter is installed inside the exhaust line and is one of: a metallic honeycomb carrier coated with a catalyst mixture and a non-woven heating mat coated with a catalyst mixture.
4. The exhaust system of a the liquid electrophotography printer according to claim 1, wherein the heating coil and the oxidative catalyst filter are sequentially installed adjacent to each other.
5. A method for removing exhaust gas in an exhaust system of a liquid electrophotography printer, comprising:
discharging, by an exhaust line, air inside an engine cell to an outside thereof;
generating air movement, by at least one exhaust fan which is installed inside the exhaust line, to move the air inside the engine cell;
heating the air to be discharged through the exhaust line using a heating coil to ignite impurities contained in the air; and
filtering and deodorizing the air to be discharged using an oxidative catalyst filter.

6. The method according to claim 5, wherein the heating coil is installed inside the exhaust line and is coated with platinum on an outer surface.

7. The method according to claim 5, wherein the oxidative catalyst filter is installed inside the exhaust line and is one of: a metallic honeycomb carrier coated with a catalyst mixture and a non-woven heating mat coated with a catalyst mixture.

8. The method according to claim 5, wherein the heating coil and the oxidative catalyst filter are sequentially installed adjacent to each other.

9. An air purification system of a liquid electrophotography printer exhaust system, comprising:

a heating coil to heat air to be discharged to ignite impurities contained in the air; and
an oxidative catalyst filter to filter and deodorize the impurities.

10. The air purification system according to claim 9, further including an exhaust line to discharge air inside an engine cell to an outside thereof.

11. The air purification system according to claim 10, further including at least one exhaust fan, which is installed inside the exhaust line to generate and move the air inside the engine cell.

12. The air purification system according to claim 12, wherein the heating coil is installed inside the exhaust line and coated with platinum on an outer surface.

13. The air purification system according to claim 12, wherein the oxidative catalyst filter is installed inside the exhaust line and is one of: a metallic honeycomb carrier coated with a catalyst mixture and a non-woven heating mat coated with a catalyst mixture.

14. The air purification system according to claim 13, wherein the heating coil and the oxidative catalyst filter are sequentially installed adjacent to each other.